

# **3M Maintenance Selection Test Battery (MSTB) Participant Information Guide**

## **About This Information Guide**

This information guide is designed to familiarize you with the 3M Maintenance Selection Test Battery (MSTB). This guide provides you with information on the following:

- I. Overview of the Test
- II. Description of the Test Parts and Example Questions
- III. Test Preparation Strategies
- IV. Frequently Asked Questions

Please carefully read this guide prior to your testing date.

## **I. Overview of the Test**

The MSTB was designed and validated to aid in the selection of individuals to all hourly maintenance jobs at 3M. The MSTB consists of five multiple-choice tests, each of which measures skills and abilities important to successful job performance. The administration of the entire test will take about 60 minutes.

The 3M Code of Conduct requires honesty and accuracy. You should take the test without help from others, and you should not share test information with others.

## **II. Description of the Test Parts, Instructions, and Example Questions**

The test consists of five parts:

- |                          |                    |
|--------------------------|--------------------|
| 1. Numerical Ability     | 10 minutes         |
| 2. Space Visualization   | 5 minutes          |
| 3. Symbolic Reasoning    | 5 minutes          |
| 4. Mechanical Principles | 20 minutes         |
| 5. Style and Work Habits | approx. 20 minutes |

The next section will provide you with a description of each part of the test and example questions to familiarize you with the testing format. Correct answers for the sample questions are marked in black.

## PART 1: Numerical Ability

Numerical Ability is the ability to add, subtract, multiply and divide integers, decimals, and fractions. This part of the test is set up in three separately timed parts. Part I (2 minutes) measures skill with integers, part II (4 minutes) measures skill with decimals, and part III (4 minutes) measures skill with common fractions. The test will automatically advance when time runs out. You should work as fast and accurately as possible.

### Example Questions

Look at the sample problems below. Each problem is followed by four possible answers and an “X”. You are to work each problem and put a heavy black mark in the answer space below the correct answer. If the correct answer is not given, fill in the answer space below the “X”.

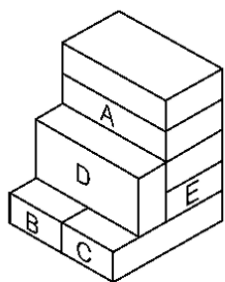
- |                   |                          |                                     |                                     |                          |                                    |
|-------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|------------------------------------|
| 1. $5 + 5 =$      | <input type="radio"/> 8  | <input type="radio"/> 11            | <input type="radio"/> 9             | <input type="radio"/> 12 | <input checked="" type="radio"/> X |
| 2. $12 - 6 =$     | <input type="radio"/> 5  | <input type="radio"/> 7             | <input checked="" type="radio"/> 6  | <input type="radio"/> 8  | <input type="radio"/> X            |
| 3. $5 \times 5 =$ | <input type="radio"/> 23 | <input type="radio"/> 24            | <input checked="" type="radio"/> 25 | <input type="radio"/> 26 | <input type="radio"/> X            |
| 4. $30 \div 3 =$  | <input type="radio"/> 6  | <input type="radio"/> 7             | <input type="radio"/> 9             | <input type="radio"/> 8  | <input checked="" type="radio"/> X |
| 5. $6 + 7 =$      | <input type="radio"/> 15 | <input checked="" type="radio"/> 13 | <input type="radio"/> 14            | <input type="radio"/> 12 | <input type="radio"/> X            |

## PART 2: Space Visualization

Space Visualization is the ability to visualize forms in space and mentally manipulate objects. This part of the test will automatically end when time runs out. You should work as fast and accurately as possible.

### Example Questions

In the piles of blocks shown below, all of the blocks are the same size and shape. Your task is to look at each lettered block and figure out how many other blocks in the pile it touches. For each lettered block, show the number of other blocks it touches by filling in the answer space under the proper number at the right of the letter.



A	1	2	3	4	5	6	7	8	9	10
	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B	1	2	3	4	5	6	7	8	9	10
	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C	1	2	3	4	5	6	7	8	9	10
	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D	1	2	3	4	5	6	7	8	9	10
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E	1	2	3	4	5	6	7	8	9	10
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### **PART 3: Symbolic Reasoning**

Symbolic Reasoning is the ability to mentally manipulate abstract symbols and to make logical judgments and decisions. In this part of the test, you will be presented with problem statements and conclusions. You will indicate whether the conclusions are true, false, or impossible to determine. This part of the test will automatically end when time runs out. You should work as fast and accurately as possible.

#### **Example Questions**

Look at the sample problems below. Each problem contains a statement and a conclusion. The statements and conclusions are given in a code as follows:

= means "is equal to."	$\neq$ means "is not equal, and so is larger or smaller."
> means "is larger than."	$\nlessgtr$ means "is not larger, and so is equal or smaller."
< means "is smaller than."	$\nlessgtr$ means "is not smaller, and so is equal or larger."

Your task is to decide whether each conclusion is definitely true, definitely false, or impossible to definitely determine on the basis of the statement.

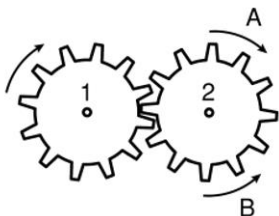
- |   |                                    |                                    |                                    |
|---|------------------------------------|------------------------------------|------------------------------------|
| 1. $X = Y = Z$ , therefore, $X = Z$       | <input checked="" type="radio"/> T | <input type="radio"/> F            | <input type="radio"/> ?            |
| 2. $X > Y > Z$ , therefore, $X = Z$       | <input type="radio"/> T            | <input checked="" type="radio"/> F | <input type="radio"/> ?            |
| 3. $X \neq Y \neq Z$ , therefore, $X > Z$ | <input type="radio"/> T            | <input type="radio"/> F            | <input checked="" type="radio"/> ? |
| 4. $X < Y < Z$ , therefore, $X < Z$       | <input checked="" type="radio"/> T | <input type="radio"/> F            | <input type="radio"/> ?            |

### **PART 4: Mechanical Principles**

This part of the test measures understanding of basic physical and mechanical concepts. You are presented with drawings of physical and mechanical scenarios and asked questions regarding the properties of the system or how it will react to specific changes. Work as fast and accurately as possible.

#### **Example Question**

If force is applied to Gear 1 in the direction shown, which way will Gear 2 rotate? If neither, mark C.



Example Question Answer: B

## **PART 5: Style and Work Habits**

This part of the test asks questions about your experience, background, opinions, and/or feelings. Type 1 items ask you to describe yourself. Type 2 items ask you to indicate how you would respond to specific situations. Please think about each question carefully and select the one response option that is most true for you. While answering these questions, it is important that you respond thoughtfully and honestly.

### **Example Question Type 1**

Is it important to you to know that you are doing as well as or better than co-workers at your same level.

- A. Strongly Disagree
- B. Disagree
- C. In Between
- D. Agree
- E. Strongly Agree

Whenever possible, you try to resolve one problem before moving to the next.

- A. Strongly Disagree
- B. Disagree
- C. In Between
- D. Agree
- E. Strongly Agree

### **Example Question Type 2**

A co-worker, with whom you've worked for several years and become close friends, has a fight with a supervisor over the best way to do a job. You happen to agree with the co-worker. The supervisor responds by ordering the co-worker to do as told or find another job. The co-worker obeys, but intentionally works at a slow pace.

If the supervisor found out that the co-worker was intentionally working slower than normal, what do you think the supervisor's response should be?

- A. Simply let the situation drop
- B. Verbally reprimand the co-worker
- C. Verbally reprimand the co-worker and formally document the incident
- D. Suspend the co-worker
- E. Fire the co-worker

How likely would you be to defend the coworker's actions?

- A. Very Unlikely
- B. Unlikely
- C. In Between
- D. Likely
- E. Very Likely

### **III. Test Preparation Strategies**

This section contains several suggestions that may help you prepare for and take the test. As you read these suggestions, try to determine which ones will be most helpful to you. **Please keep in mind that these are only suggestions, and that different people may find some of the suggestions more or less helpful than others.**

#### **Preparation for the Testing Session**

##### *Familiarize Yourself with Instructions and Type of Test Questions*

Carefully read and become familiar with the instructions and the type of test questions that are described in this [Information Guide](#). You may feel more comfortable during the test if you are familiar with the instructions and types of questions prior to the actual test administration.

##### *Take Care of Your Well-Being Before the Test*

Being well-rested can help enhance your memory, mood, and overall wellbeing, allowing you to perform your best. Take the test when you're well rested, and not hungry.

##### *Manage Your Anxiety*

If you feel anxious before or during the test, take several slow, deep breaths to relax. Also, please realize that it is normal to be somewhat nervous even if you are well prepared.

#### **Day of the Testing Session**

##### *Arriving at the Testing Location*

During the testing session, you might be in a room with several other test takers. Below are some general tips to help you be successful when you arrive at the testing location.

Arrive at the test site at least 20 minutes prior to the start of the session to allow sufficient time for check-in. The testing room will be closed 5 minutes prior to the start of the session.

**Do NOT bring your cell phone into the testing room.** If your watch beeps "on the hour," be sure to disable that feature.

Remain detached from others who might distract you.

##### *Stay Relaxed and Focused on the Test*

During the testing session, it is important to stay relaxed and focused on the test. Work quickly, but accurately. You may find it helpful if you wear a watch to the testing session. This will help you monitor the time.

##### *Listen to and Read the Instructions/Questions Carefully*

Each part of the test has different instructions. You will read these at your own pace as you proceed through the test. The instructions will clarify any conditions that are specific to the test you are taking. Be sure that you understand what to do for each test.

## MSTB Participant Information Guide

### Know the Time Limits

The test instructions for each part list the amount of time allowed for that part. Make a note of your start time. It is important to use the time limits to pace yourself. Occasionally check your testing progress against the time limit. If you are having difficulty answering a question, go on to the next question. If you have time left when you get to the end of a test, you may go back and review any question within that test. You cannot return to parts within the test. Stay focused and complete as many of the questions as you can in the time provided.

### Answering Numerical Ability, Symbolic Reasoning, Space Visualization, and Mechanical Principles Questions

During the Numerical Ability, Symbolic Reasoning, Space Visualization, and Mechanical Principles tests, it is important to try to answer as many questions as quickly and accurately as you can.

### Answering Style and Work Habits Questions

The Style and Work Habits test asks you questions about your experiences, background, opinions, and/or feelings. When completing this exercise, you should consider the following helpful hints:

Read each question carefully to ensure that you understand exactly what it is asking.

Some of the questions may not apply exactly to you. Consider the general sense of the question and pick the choice that comes closest to describing your situation.

Respond accurately and honestly to each question. Truthfulness is critical in this process. Remember to choose only one answer to every question.

Review your answers if there is time; resist the urge to stop working as soon as you complete all the questions. Go back and make sure that you have answered all the questions.

### Additional Resources on Test Taking Strategies

It is your responsibility to be well prepared for the testing session. We have described some basic steps that will help you feel more positive and confident about test taking.



#### **IV. Frequently Asked Questions**

##### *How long will the test take?*

The tests themselves require about 60 minutes to complete, although many test takers will finish in less time. You should expect to be at the test location for up to 2 hours for check-in, instructions, and test administration.

##### *Will breaks be provided during the examination?*

No. Since the entire test can be completed within two hours, there are no breaks during the test. Please plan ahead and visit the restroom if needed before the start of the test session.

##### *What should I bring to the test?*

Test takers must bring photo identification (e.g., 3M ID Badge, driver's license, government ID, passport). Test takers will not be granted access to the testing site without proper identification. You should avoid bringing other belongings into the test room as other belongings are not permitted during testing.

##### *What should I NOT bring to the test?*

Please do NOT bring any electronic devices, such as cell phones, MP3 players, or tablets, into the test location. The use of such devices during the test is strictly prohibited. If your device makes any noise, or you are seen accessing it at any time, you will be dismissed immediately from the examination and selection process, and your scores may be cancelled. You should not bring any other belongings. 3M will provide you with all the materials you need for the test, including scratch paper.

##### *Who will be administering the test?*

A test administrator chosen by 3M will be administering the test.

##### *When will I find out my results?*

Following the test, you will be notified whether you have been selected to move forward in the selection process once the test has been scored. This may take up to several days from the test date.

##### *Can I reschedule the test?*

Please contact the Test Administrator for options regarding rescheduling a test.

##### *Can I do anything to prepare for the test?*

Yes. Please review the information in this guide to help you become familiar with the tests, their instructions, and the type of questions that will be asked. In addition, there are numerous books on test taking strategies that you may find helpful in preparing for the test.